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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,047	01/12/2005	Stig Frohlund	9342-37	6651

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EXAMINER	
SANTIAGO CORDERO, MARIVELISSE	

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/521,047	FROHLUND ET AL.	
	Examiner	Art Unit	
	Marivelisse Santiago-Cordero	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 March 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 January 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-20 are pending. Claims 11-20 were newly added.

Response to Arguments

2. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Applicant is advised that should claims 1-10 be found allowable, newly added claims 11-20 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-2, 4-12, and 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews (cited in form PTO-892, paper no. 20051208) in view of Koenck et al. (hereinafter "Koenck"; Patent No.: US 5,410,141).

Regarding claim 1, Andrews discloses a radio communication terminal, comprising:

a user input and output interface (Fig. 1, references 18 and 20);

a terminal core including a main terminal printed circuit board carrying electronic circuits with data processing means for controlling terminal functions (Fig. 2, reference 46; page 5, lines 13-16);

a cover connector connected to the data processing means (Fig. 2, reference 52); and

a releasable cover (Figs. 2, 6, and 8) carrying an auxiliary functional member (Figs. 2, 6, and 8, reference 18) and a terminal connector connected to the auxiliary functional member (Fig. 3); wherein the cover connector and terminal connector are configured to provide communicative connection for the auxiliary functional member of the cover to the data processing means of the terminal core (page 6, lines 7-11; page 7, lines 17-18),

wherein the terminal core comprises a keyboard printed circuit board supporting a terminal keyboard (Fig. 10, reference 48), connected to said the electronic circuits (Fig. 10) and wherein the cover connector is disposed on the printed circuit board (Fig. 10), wherein a display is connected to the main terminal printed circuit board (Fig. 2, note that when the terminal is mounted/joined, the display is connected to the main terminal printed circuit board) so that the releasable cover is configured to be removed from the main terminal printed circuit board (page 3, lines 6-14).

Andrews fails to disclose the terminal core including the display, and a system connector, wherein the terminal core comprises an **additional** keyboard printed circuit board, so that the releasable cover is configured to be removed from the display.

However, Koenck discloses a radio communication terminal comprising: a user input and output interface (Fig. 2); a terminal core including a main terminal printed circuit board carrying electronic circuits with data processing means for controlling terminal functions (Fig. 2, references 37, 43, and 126; col. 8, line 67 through col. 9, line 8), a display (Fig. 2, reference 43), a system connector (Fig. 2, reference 18-24; col. 7, lines 21-65; Figs. 7-8 and 25), a releasable cover carrying an auxiliary functional member (Fig. 1, reference 11), wherein the terminal core comprises an **additional** keyboard printed circuit board supporting a terminal keyboard (Fig. 2, reference 41), connected to the electronics circuits (Fig. 2), wherein the display is connected to the main terminal printed circuit board (Fig. 2, reference 43) so that the releasable cover is configured to be removed from the display (Fig. 2).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to include in the terminal core of Andrews the display, and a system

connector for the advantage of providing a communications port capable of two-way transfer of data with other compatible devices (Koenck: col. 7, lines 35-39), wherein the terminal core comprises an **additional** keyboard printed circuit board, so that the releasable cover is configured to be removed from the display because it would increase versatility of manufacturing, thus, reducing manufacturing costs and labor given the interchangeable part can be used in different devices without requiring specialized machinery; in addition to allow changes to the visual appearance of the handset by varying the keypad design since it does not form an integral part of the core of the handset.

Moreover, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate an additional keyboard printed circuit board, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Regarding claim 2, in the obvious combination, Andrews discloses wherein one of the cover connector and terminal connector comprises conductive connection pads (Figs. 2 and 10, reference 52), and the other of the cover connector and terminal connector comprises a biased resilient connector element (Fig. 3; page 6, lines 15-18).

Regarding claim 4, Andrews in combination with Koenck disclose the claimed invention except for wherein the biased resilient connector element is a leaf spring connector. It would have been an obvious matter of design choice to incorporate a leaf spring connector as the biased resilient connector element since the applicant has not disclosed that a leaf spring connector solves any stated problem or is for any particular purpose and it appears that the invention would

perform equally well with the biased resilient connector element of Andrews in combination with Koenck.

Regarding claim 5, in the obvious combination, Andrews discloses wherein the conductive connection pads are in the cover connector disposed on the terminal core (Figs. 2 and 10, reference 52).

Regarding claim 6, in the obvious combination, Andrews discloses wherein the cover comprises a shell member configured to cover a portion of a front face of the terminal core (Fig. 2, reference 44).

Regarding claim 7, in the obvious combination, Andrews discloses wherein the cover comprises a shell member configured to cover a portion of a rear face of the terminal core (Fig. 2, reference 42).

Regarding claim 8, in the obvious combination, Andrews discloses wherein the terminal core and the cover are provided with cooperating attaching means for releasable attachment cover (Fig. 2).

Regarding claim 9, Andrews discloses a terminal core having a user input and output interface, for use with a releasable cover carrying an auxiliary functional member and a terminal connector connected to the auxiliary functional member, said the terminal core comprising:

a main terminal printed circuit board carrying electronic circuits with data processing means for controlling terminal functions (Fig. 2, reference 46; page 5, lines 13-16); and

a cover connector connected to the data processing means (Fig. 2, reference 52); wherein the cover connector and terminal connector are configured to provide a communicative

connection for the auxiliary functional member of an attached cover to the data processing means of the terminal core (page 6, lines 7-11; page 7, lines 17-18),

wherein the terminal core comprises an keyboard printed circuit board supporting a terminal keyboard (Fig. 10), connected to the electronic circuits (Fig. 10), and wherein the cover connector is disposed on the printed circuit board (Fig. 10), wherein a display is connected to the main terminal printed circuit board (Fig. 2, note that when the terminal is mounted/joined, the display is connected to the main terminal printed circuit board).

Andrews fails to disclose the terminal core comprising the display, and a system connector, wherein the terminal core comprises an **additional** keyboard printed circuit board.

However, Koenck discloses a terminal core having a user input and output interface (Fig. 2) comprising: a main terminal printed circuit board carrying electronic circuits with data processing means for controlling terminal functions (Fig. 2, references 37, 43, and 126; col. 8, line 67 through col. 9, line 8), a display (Fig. 2, reference 43), a system connector (Fig. 2, reference 18-24; col. 7, lines 21-65; Figs. 7-8 and 25), wherein the terminal core comprises an **additional** keyboard printed circuit board supporting a terminal keyboard (Fig. 2, reference 41), connected to the electronics circuits (Fig. 2), wherein the display is connected to the main terminal printed circuit board (Fig. 2, reference 43).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to modify the terminal core of Andrews to incorporate the display, and a system connector for the advantage of providing a communications port capable of two-way transfer of data with other compatible devices (Koenck: col. 7, lines 35-39), wherein the terminal core comprises an **additional** keyboard printed circuit board because it would increase versatility

of manufacturing, thus, reducing manufacturing costs and labor given the interchangeable part can be used in different devices without requiring specialized machinery; in addition to allow changes to the visual appearance of the handset by varying the keypad design since it does not form an integral part of the core of the handset.

Moreover, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate an additional keyboard printed circuit board, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179.

Regarding claim 10, in the obvious combination, Andrews discloses wherein the cover connector comprises conductive connection pads (Figs. 2 and 10, reference 52).

Regarding claim 11, the limitations are rejected with the same grounds and for the same reasons and motivations stated above for claim 1.

Regarding claim 12, the limitations are rejected with the same grounds and for the same reasons and motivations stated above for claim 2.

Regarding claims 14-18, the limitations are rejected with the same grounds and for the same reasons and motivations stated above for claims 4-8, respectively.

Regarding claim 19, the limitations are rejected with the same grounds and for the same reasons and motivations stated above for claim 9.

Regarding claim 20, the limitations are rejected with the same grounds and for the same reasons and motivations stated above for claim 10.

8. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews in combination with Koenck (hereinafter "Andrews/Koenck") as applied to claim 2 above, and

further in view of Canova et al. (hereinafter "Canova"; cited in form PTO-892, paper no. 20051208).

Regarding claim 3, Andrews/Koenck disclose the radio communication terminal as recited in claim 2 (see above). Andrews/Koenck fails to disclose wherein the biased resilient connector element is a pogo-pin connector.

However, Canova discloses a radio communication terminal wherein the biased resilient connector element is a pogo-pin connector (col. 1, lines 40-48).

Therefore, it would have been obvious to one of ordinary skill in this art at the time of invention by applicant to incorporate a pogo-pin connector as the biased resilient connector element of Andrews/Koenck as suggested by Canova because they enable the accessory devices to be relatively small and portable (Canova: col. 4, lines 45-47).

Moreover, it would have been an obvious matter of design choice to incorporate a pogo-pin connector as the biased resilient connector element since the applicant has not disclosed that a pogo-pin connector solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the biased resilient connector element of Andrews/Koenck.

Regarding claim 13, the limitations are rejected with the same grounds and for the same reasons and motivations stated above for claim 3.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marivelisse Santiago-Cordero whose telephone number is (571) 272-7839. The examiner can normally be reached on Monday through Friday from 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MSC 3/28/06

MSC

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SUPERVISORY PRIMARY EXAMINER